DOCUMENT RESUME

ED 299 503 CG 021 149

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TITLE Substance Abuse Prevention Program. Evaluation Report 1986-87.
INSTITUTION Albuquerque Public Schools, NM. Planning, Research and Accountability.
PUB DATE Jun 87
NOTE 27p.; Document contains light type.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Board of Education Policy; *Drug Education; Elementary Secondary Education; *Intervention; *Prevention; Program Implementation; Public Schools; *School Activities; *Substance Abuse
IDENTIFIERS New Mexico (Albuquerque)

ABSTRACT

In May 1986, the Albuquerque, New Mexico Public Schools adopted a policy to address concerns about student substance abuse. All schools developed objectives and activities to address substance abuse prevention and intervention, and an interdisciplinary team was formed to monitor and facilitate the schools' efforts in implementing the policy. To evaluate the schools' efforts, the prevention and intervention programs at one elementary, one middle, and one high school were evaluated. This report presents an evaluation of the three schools. It includes an administrative summary; a description of the district-wide substance abuse prevention program; an explanation of the evaluation design; and descriptions of the elementary, middle, and high school programs. Descriptions of the individual programs at the three schools contain sections on changes in student knowledge and attitudes; staff opinions of the prevention program; and at the middle and high school levels, student opinions of the program. The summary and conclusion note that: (1) all three schools were in compliance with most of the administrative procedures for implementation of the district's substance abuse policy; (2) the focus of the programs progressed from prevention in the lower grades to intervention in the upper grades; and (3) the elementary school program emphasized prevention through classroom education while the middle and high schools organized active prevention and intervention programs. (NB)

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Substance Abuse Prevention Program

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Administrative Summary

History and Background

In May of 1986, the Albuquerque Public Schools adopted a substance abuse policy to address concerns about the effects of substance abuse on the achievement and school behavior of students. During the 1986-87 school year, each school in the district was required to develop objectives and activities to address substance abuse prevention and intervention in their School Improvement Plan. An interdisciplinary team, the Team Against Substance Abuse (TASA), was formed to monitor and facilitate the schools' efforts in implementing the policy. Toward its goals of assisting the schools in planning, increasing awareness of substance abuse issues, and identifying and establishing a network among service providers, TASA offered training workshops, contacted many community service providers, and held several planning meetings at schools throughout the district.

To evaluate the schools' efforts toward implementing the district's policy on substance abuse, the prevention and intervention programs at three schools were examined. The schools selected for the evaluation, one each at the elementary, middle, and high school levels, were chosen because they were considered to have model programs.

Evaluation Design

The evaluation design included methods for obtaining both formative and summative information. Formative information enables school personnel to modify and improve existing programs as they are being piloted. Summative information provides an assessment of the impact of the programs.

Data collection methods included interviews about the programs with school personnel involved in the substance abuse programs, student and teacher surveys on prevention and intervention activities, and testing of students' knowledge of and attitudes toward substance use and abuse.

Results

Evaluation results indicated that the three schools developed a variety of programs and activities to implement the district's policy on substance abuse. Each school had prevention programs which included classroom, parent education, staff inservice, and student support. The number and variety of activities for students directed toward prevention was greater at the higher grade levels. The emphasis of the elementary program was classroom education, while the middle and high school programs conducted a variety of activities outside of the classroom. For example, activities at the middle school level included education in health classes and student seminars, and a presentation on smoking by a community agency. The high school program included education in health classes; presentations by community agencies, nationally-known speakers, and experts from the community; and an entire week devoted to classroom discussion and assemblies on substance abuse.

In addition to providing prevention activities, the middle and high schools established intervention programs which included a system for referring students

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identified as either abusing or selling harmful substances or at risk of engaging in these activities. To further address intervention, the high school conducted a student support group and a parent involvement group for students with drug or alcohol problems.

When asked about the effectiveness of the prevention activities, staff from all three schools and secondary students said they preferred those provided by charismatic speakers or those which included demonstrations and special effects. In addition, presentations which emphasized positive alternatives to drug use, rather than focusing on the negative aspects of substance abuse, were better received by students. Teachers also preferred activities that stimulated classroom discussion, involved active participation by students, or addressed issues of peer pressure and self-esteem. Both students and teachers believed that the prevention programs increased awareness of the negative consequences of drug or alcohol use and led to a decrease in their use. As part of the prevention program, each school offered inservice training to teachers and support staff, which as a whole, staff members thought was effective.

Staff members at all levels and secondary students were asked to evaluate the effectiveness of intervention strategies. Students believed the best way to help other students with substance abuse problems was to talk to them and to try to convince them not to use drugs and alcohol. They often said that they would seek help from school staff or other adults if friends of theirs were experiencing substance abuse problems. Teachers at the elementary school thought the best way to intervene with a student who was having drug problems was to refer the student to the nurse or counselor. Most of the teachers at the middle and high schools received information on the procedures for referral within their schools and believed the referral system to be the most effective way to deal with substance abuse problems. Other methods rated as effective in handling substance abuse problems were peer, individual, and family counseling; and education.

Elementary students showed significant gains in knowledge about substance use and abuse between pretesting and posttesting. Although significant gains in knowledge were not evident for middle and high school students, both groups answered most of the items correctly on both tests. The test itself and the students' sophistication are reasonable explanations for the lack of significant changes at this level. High school students also scored significantly higher on the attitude portion of the posttest; however, the increase was small, less than one test item. No significant changes in attitude were apparent at the elementary and middle school levels.

Evaluation results suggest that the prevention activities and intervention strategies employed by the three schools are, for the most part, well received by staff members and students. It is important in future evaluations to attempt to measure actual changes in substance use because of research findings which suggest that programs which emphasize knowledge alone may lead to increased experimentation with drugs and alcohol, while programs which emphasize activities that address personal and social competence may be more successful in preventing substance use and abuse (Botvin et al, 1984; Stuart, 1974).

History and Description of Program

In May, 1986, the Albuquerque Public Schools (APS) adopted a policy on substance abuse to address concerns about the effects of substance abuse on the learning, achievement, and school behavior of students.

Team Against Substance Abuse

The policy adopted by the Board of Education provides for education on the use and abuse of substances such as alcohol and drugs, as well as student support in the form of prevention and intervention activities. To address the directives of providing education and student support in APS, the Team Against Substance Abuse (TASA) was formed. TASA is an interdisciplinary team of personnel whose efforts in implementing the substance abuse policy are funded by the school district, as well as county and state agencies. As the first step in implementing the substance abuse policy, TASA members developed administrative procedures, specifying how schools should implement the policy. During the 1986-87 school year, each school in the district was required to develop objectives and activities in their School Improvement Plan to address substance abuse prevention and intervention. While elementary schools were to focus entirely on prevention, middle schools and high schools were to focus on both prevention and intervention strategies with a particular focus on intervention at the high school level. Guidelines for the prevention component designated the inclusion of classroom education, staff inservice, parent education, and student support. Guidelines for the intervention component designated the inclusion of staff inservice, a referral procedure, and supplemental intervention support. Principals at all levels were asked to identify a team to develop the school's plan and to implement the prevention and intervention programs. Each high school feeder cluster was required to develop plans for the entire cluster of schools. One of TASA's roles was to facilitate and monitor the schools' efforts in implementing the administrative procedures for the substance abuse policy.

Goals

The goals of the TASA for the 1986-87 school year were to:

1. increase awareness of the problem of substance abuse;
2. identify resources in the community which offer prevention and intervention services;
3. assist schools in the development of plans and programs;
4. increase the competence level of the TASA members by participating in training; and
5. establish a network with the community service providers and the school system.

Implementation

During the 1986-87 school year, each of the seven TASA members were responsible for facilitating and monitoring substance abuse programs for two school clusters. Since some clusters include as many as 22 schools some TASA members were responsible for working with over 40 schools to increase

awareness about substance abuse and to provide technical assistance in the development of plans and programs.

The TASA staff provided inservice training for teachers, counselors, and school administrators to increase awareness of substance abuse. Inservice sessions included information on the identification of high risk students, methods of working with high risk populations, drinking and driving, the signs and symptoms of substance use, gateway drugs (drugs such as alcohol and cigarettes which are believed to lead to the use of other drugs), the cultural aspects of substance abuse, and resources available to staff for use with their students. Students received information about substance abuse, as well. For instance, during one month, substance abuse presentations were made at thirteen elementary schools throughout the district. In addition to presentations on substance use and abuse, workshops were provided to students on leadership, problem solving, and decision making.

To facilitate the development and implementation of school plans, several meetings were held with school personnel. These included planning sessions for Youth Leadership group activities, teacher inservices, a substance abuse awareness week, a drug-free lock-in, and parent nights. Meetings also were held frequently with school teams and principals to assist in the implementation of prevention and intervention plans.

TASA staff also helped identify and coordinate prevention and intervention services. Various community agencies were contacted and, when possible, their services were made available to the schools. For example, the following agencies were contacted to provide programs for school staffs: the South Broadway Youth Development Center, the UNM/Mental Health Adolescent Program, the Rotary/Interact Committee, Whitney Sell, the Junior League, New Beginnings, Project Hope, Project Focus, Public Service of New Mexico, the Care Unit, the City Jail, Cottonwood de Albuquerque, Vista Sandia, and Heights Psychiatric Hospital.

Evaluation Design

In the fall of 1986, an external evaluator was contracted by Planning, Research, and Accountability (PRA) to develop and implement an evaluation of the substance abuse prevention and intervention program in selected schools in APS. The purpose of the evaluation was to provide a description of the programs and to examine the effects of substance abuse prevention efforts within the schools.

Because the program at each school in APS is uniquely tailored to the needs of the students, a case study approach was selected for the evaluation. A comprehensive evaluation of the programs in all schools in APS would far exceed the available funding; therefore three schools were selected, one each at the elementary, middle, and high school levels. The three schools were chosen by the then TASA Coordinator because they were considered to have model programs, although each school differed in its approach and stage of development. Because of the use of a case study approach and limitations in sampling, the results of the evaluation cannot be generalized to all schools in APS. Instead, they provide a picture of prevention and intervention efforts as the substance abuse program is being implemented in the district. To comply with State funding requirements for substance abuse programs in APS, student test data were collected on attitudes toward and knowledge of substance abuse issues. However, it should be recognized that the substance abuse prevention program in APS is in the early stages of development and implementation. Consequently, it is unrealistic to expect students' knowledge and attitudes to change dramatically during the time period of the evaluation. Because of this limitation, information was collected to describe prevention and intervention activities in the three schools and to obtain the opinions of school staff and students on their effectiveness. This type of information is more appropriate at this point in the program because it can be used to modify and improve the substance abuse prevention program as it is being implemented in APS.

Data Collection and Methods for Analysis

An interview was conducted with the TASA Coordinator to identify TASA's goals and activities for the 1986-87 school year. In addition, copies of monthly progress reports for the first half of the school year were provided to the evaluator for review. The interview and project documents provided background information to assist in describing the substance abuse efforts in the school district and in developing the evaluation design.

School Staff. An individual interview of key staff members involved in the substance abuse activities was conducted at each of the three schools. Interviews lasted one to one and a half hours and were structured to obtain information about the school's prevention and intervention activities. In addition, principals were asked to provide copies of school policies regarding substance abuse as well as written plans for the implementation of their programs.

A survey also was conducted at each school to obtain the opinions of teachers and support staff (counselors, administrators, and nurses) about the substance abuse program. School personnel were asked which of the activities provided for students were effective and what elements of the activities contributed to their

effectiveness. They also were asked to evaluate the effectiveness of the inservice training provided for teachers and support staff. In addition, school personnel were asked to provide suggestions on how students with substance abuse problems might best be helped by the schools. Finally, they were asked how the school's referral system could be improved.

Students. Students also were asked to evaluate the effectiveness of the activities and programs in which they participated. Many of the questions on the student survey were identical to those on the survey for school staffs. It was felt that, especially in the area of substance abuse, it is important to ascertain if students and school personnel hold similar opinions regarding the effectiveness of current activities and approaches. Because of the disruption created by random sampling of an entire school population, classrooms of students were randomly selected to complete student surveys. Two classes at each grade level in the middle and high school, for a total of 14 classes, completed surveys about the substance abuse activities provided by the school. Elementary students did not complete a student survey since they were primarily exposed to prevention activities through a unit taught by the counselor.

The student survey asked which of the substance abuse prevention activities the secondary students liked the best and why. The survey also asked students how they felt they had benefited from the activities provided by the school. Like school staffs, students were asked how they thought students who are experiencing problems with drugs or alcohol could best be helped by the schools and how they, themselves, might help friends with substance abuse problems. The purpose of these two questions was to assess whether students would use the existing systems or personnel at their schools, and to obtain other ideas about effective ways to help students with substance abuse problems. The results of the surveys were summarized using a content analysis approach. Differences among grade levels were noted when present in the data.

In addition to surveys, selected students completed instruments which measured knowledge of and attitudes toward the use of drugs and alcohol. At the elementary school, a pretest was administered to fifth graders prior to their completion of a curriculum unit entitled, "Children Are People." The test was again administered after completion of the unit. Eighth graders at the middle school and ninth graders at the high school participated in pretesting and posttesting. These students, who were enrolled in health classes containing a unit on alcohol and drug abuse, completed an instrument which consisted of 14 items on knowledge of alcohol and drugs and nine items on attitudes toward substance use. The items were adapted from a survey developed by a Santa Fe consulting firm for use by the Drug Abuse Bureau of the New Mexico Health and Environment Department. Test results were analyzed using a repeated measures t-test to determine if students knew significantly more and held significantly more positive attitudes after exposure to the substance abuse curriculum than before.

Elementary School Program

Program Description

The emphasis of the elementary school program was prevention and included four components: classroom education, staff inservice, parent education, and student support activities. All prevention planning and implementation was coordinated by the school counselor. Using curriculum materials such as "Children Are People," the counselor presented a four-session program on prevention to each grade level, kindergarten through fifth. In addition to classroom instruction, health materials which included units on substance abuse were available to students in the library. A full-day inservice with guest speakers was held for staff to increase their knowledge and awareness of alcohol and drug use. Education on substance abuse issues also was provided for parents during a PTA meeting. Student support activities included the formation of a "Just Say No" club during the second half of the year for fourth and fifth graders.

Changes in Student Knowledge and Attitudes

Seventy-eight of 109 fifth graders, or 72%, completed both pretests and posttests. Elementary students' knowledge about alcohol and drugs was significantly greater on the posttest than on the pretest ($t = 4.35$, $p < .001$). On the pretest students answered correctly seven of the 21 items and on the posttest students correctly answered nine items. See Table 1.

Table 1
Mean Pretest and Posttest Scores
on Knowledge Items

Pre	Post
7.7	9.1

Students' attitudes toward the use of drugs and alcohol did not significantly change between pretesting and posttesting. On the average, students gave the desired response on five of 23 items measuring attitudes towards use and abuse of substances. The mean scores on the pretests and posttests are contained in Table 2.

Table 2
Mean Pretest and Posttest Scores
on Attitude Items

Pre	Post
4.9	5.1

Staff Opinions of Prevention Program

Fifty percent of the teachers and support staff at the elementary school completed the staff survey. The survey dealt with three primary areas: student activities, staff inservice, and intervention strategies. Each of these areas will be discussed.

Student Activities. The following questions addressed staff opinions regarding the effectiveness of substance abuse prevention activities provided by the schools:

1. Several speeches and activities were offered for students at your school this year on the use of drugs and alcohol. Which of these did you attend?

2. Of those speeches and activities for students that you attended, which did you like best? Why?

3. How did the speeches and activities help the students who attended?

Two-thirds of the elementary staff members who completed a survey indicated that they attended a presentation given by the school counselor, a lecture on safety, "Just Say No" meetings, and a film viewing. One third of the elementary respondents did not attend the prevention presentations because they taught students in the lower grades and, therefore, were not involved. There was no consensus on which was the best presentation. Two teachers thought that the lecture on safety by the Albuquerque Police Department was the best because the speaker involved the students and related to their problems. One said the counselor's presentation was the best because it was "personal." Others thought that all of the presentations were equally good. When asked how the activities helped students, most respondents said that they increased the students' awareness of the problem of substance abuse. A few believed that the prevention programs led to helpful discussions about substance abuse.

Staff Activities. Three of the survey questions addressed the activities provided for school staff. These were:

1. In addition to the speeches and activities offered to students, some activities such as inservice training were provided for teachers and staff. Which of these did you attend?

2. Of the activities for teachers and staff which were the most effective?

3. Of the activities for teachers and staff which were the least effective?

Three-fourths of those who returned the staff survey said they attended an inservice meeting on substance abuse, a PTA meeting, or both. The remainder indicated that they were not present at these meetings. Of the two presentations, the majority thought the inservice was the most effective. Staff members commented that the inservice was informative and that it was beneficial to hear outside speakers, such as the physician who conducted the inservice. One teacher thought that a presentation by a mother and her son who had

experienced drug-related problems was the most effective, while another expressed the opinion that the presentation was manipulative and exploitative.

Intervention Strategies. Two items on the staff survey solicited opinions regarding effective intervention strategies for students experiencing substance abuse problems. These were:

1. If you believed that a student at your school was experiencing problems with drugs or alcohol, what would you do?

2. In your opinion, what is the most effective way to help students if they are using drugs or alcohol?

When elementary staff members were asked what they would do if they believed that a student was having problems with drugs or alcohol, most said that they would talk to the counselor. A few indicated that they would involve the school nurse, the principal, or the student's parents. Teachers and support staff offered several ideas for helping students with drug or alcohol problems; the most frequently mentioned were counseling, intervention with parents, and education.

Middle School Program

Program Description

In addition to having a program which addressed prevention of substance abuse, the middle school developed an intervention plan for students who were using drugs or alcohol. Both types of activities were coordinated by a team composed of teaching and support staff, including the nurse and two counselors. The prevention program included three main components: classroom education, staff inservice, and student support.

The classroom education program varied across grade levels. As part of a seminar, the sixth and seventh grade students participated in the QUEST program which dealt with substance abuse issues. Eighth graders were provided education on the abuse of alcohol and drugs during their one-semester health class. Guest speakers talked to students during the substance abuse units in both the seminar and the health classes.

Inservice training for teachers and support staff included a full-day session for the entire staff which included information on the school's intervention process, and presentations from community members such as a physician who was an expert in the area of substance abuse. In addition to the inservice session, teachers and support staff who were members of the intervention team or involved in the seminar, completed QUEST and Impact Training.

The intervention plan included a system for referring students who were "at risk," or who were actually using or selling illegal substances. Once a student was identified as needing intervention, the problem was defined, the frequency of use was determined, a list of resources was provided to the parents, and parents and students signed a "no-use" contract. As part of a student support program, 50 students identified as "at risk" for drug or alcohol use participated in a twelve-hour workshop on conflict resolution, peer relationships, strategies for saying no, and self-esteem.

Changes in Student Knowledge and Attitudes

All of the second semester eighth grade health classes were pretested and posttested on an instrument measuring knowledge of and attitudes towards drugs and alcohol. Thirty-five of the middle school students completed both pretests and posttests. No significant difference was found between the mean pretest and posttest scores for the items measuring knowledge of alcohol and drugs at the middle school. Students correctly answered an average of 11 of the 14 items or 79% on both tests. Mean scores for students who completed both tests are reported in Table 3.

Table 3
Mean Pretest and Posttest Scores
on Knowledge Items

Pre	Post
11.3	11.0

Middle school students' attitudes toward the use of drugs and alcohol did not significantly change between pretesting and posttesting. Students gave the response indicative of an appropriate attitude toward substance use and abuse on seven of the 11 items or 64% on both tests. Mean pretest and posttest scores are contained in Table 4.

Table 4
Mean Pretest and Posttest Scores
on Attitude Items

Pre	Post
7.3	7.4

Student Opinions of Prevention Program

Six randomly selected classes, two at each of the middle school grade levels, completed surveys about the substance abuse prevention activities conducted during the year. Of the 99 students who responded to the survey items, 33% were in the eighth grade, 21% in the seventh grade, and 46% in the sixth grade. The questionnaire included five questions and dealt with two areas--student activities and intervention strategies.

Student Activities. Three of the survey questions asked for students' opinions of the substance abuse prevention activities they attended during the school year. These questions were:

1. Several speeches and activities were offered at your school this year on the use of drugs and alcohol. Which of these did you attend?

2. Of those speeches and activities you attended, which did you like best? Why?

3. How did the speeches or activities you attended help you?

When asked which of the speeches and activities they attended, the sixth graders most often gave nonspecific answers such as "all" or "the one on drugs." The one activity specifically mentioned by the sixth graders was a presentation by the South Broadway Youth Development Center. Most of the seventh graders said that they did not attend any of the speeches and activities offered at their school. The drug unit of the health class was the activity mentioned most often

by the eighth graders and some said they participated in Youth Leadership activities, as well. The sixth graders liked a presentation on smoking the best because a machine was used in the demonstration which showed the harmful effects of smoking on the lungs. Most of the seventh and eighth graders did not have a preference for any of the activities because they had not attended any or had attended only one and, therefore, could not make comparisons. Eighth graders indicated that they liked their health class because it taught them about drugs and their effects.

Students believed the prevention activities were beneficial because they became better informed about the harmful consequences related to alcohol and drug use. Some students said the prevention program encouraged them not to begin taking drugs or to stop using them. Some said that the programs on prevention helped them deal with the pressure to take drugs and enabled them to "say no." A small number of students said that they were not helped by the activities because they already knew about drugs.

Intervention Strategies. Two of the survey questions asked about the most effective ways to help students with substance abuse problems. These questions were:

1. If a friend was getting into trouble with drugs or alcohol, what would you do?

2. What is the best way to help kids at school if they are using drugs or alcohol?

When asked what they would do if a friend were using drugs or alcohol, students answered most often that they would talk to their friend. Many of the middle school students said that they would tell their friend about the harm drugs cause in an effort to convince them to stop using drugs. Students also said they would "get help" from adults such as counselors, teachers, or parents, but generally said they would try talking to the friend before they would go to someone else. Some students responded that they would "stay away" from the friend or "be ashamed." When asked what was the best way to help students, talking and explaining the hazards of drug use were the most frequent responses from sixth and eighth graders. Seventh graders gave a wider variety of answers like "give a drug test" or "have more speakers and movies." Many students in all grades said that talking to parents, counselors, teachers, nurses, the principal, or another adult was a good way to help students with substance abuse problems. Some students mentioned special treatment programs for alcohol or drugs as the best solution. Occasionally students thought that going to an adult was "telling on" another student, and although they thought it was an effective way to help students, they expressed it in negative terms such as "ratting." A few students suggested stricter responses to substance abuse such as "kicking them (the students) out" or having more "guards" at school.

Staff Opinions of Prevention Program

About one-third of teachers, administrators, and support staff at the middle school completed a survey, which was identical to the survey for elementary and high school staff members.

Student Activities. Of those who responded, most said that no activities were available to their students or they could not attend the student activities. The activities that were attended by school personnel were presentations by the South Broadway Youth Development Center and a parole officer, a lecture by a teacher at their school, a drug intervention meeting, and a student assembly. When asked which activity they liked best, most respondents were not able to make comparisons because they had not attended more than one presentation. Those that provided answers preferred the lecture by the middle school teacher and the drug intervention meeting. According to one respondent, the teacher was the best because he was "to the point." The intervention meeting was thought by some to be the best because it held the students' attention. Still others thought that the student seminar was most beneficial because it offered a "forum for discussion." The school staff believed that the speeches and presentations on prevention mainly helped students by increasing their awareness of the harmful effects of drugs and alcohol.

Staff Activities. Most of the school personnel who responded to the survey attended a school-based inservice on the intervention program for students at risk of using drugs or alcohol, or for students selling, using, or possessing illegal substances. Other activities attended by school staff were a presentation by a physician and a special training program offered by a health care facility. Those who had attended the doctor's presentation thought that it was the most effective because she was "knowledgeable," "dynamic," and "cared about change." One respondent mentioned that the presenter made the audience think about the importance of their own behavior in modeling attitudes and use of substances. Practically no one answered the question regarding the least effective activities provided for staff. One response was that activities which "only preach" are ineffective.

Intervention Process. The majority of the middle school staff indicated that if they believed a student was experiencing problems with drugs or alcohol they would "take appropriate steps as outlined in the intervention plan." In addition to using the school's referral system, some said they would talk to the student. There was a wide variation in responses to the question regarding the most effective way to help students who are using drugs or alcohol. The majority of school personnel thought the intervention team was the most effective approach. Some mentioned the importance of family counseling or parent involvement. Peer or individual counseling, education, and stricter law enforcement also were recommended as effective methods for helping students with drug problems.

High School Program

Program Description

The high school program included both prevention and intervention strategies. Planning and implementation of the substance abuse program was managed by a Core Team composed of an administrator, parents, teachers, counselors, and health staff. The prevention component provided: classroom education, staff inservice, and parent education. Students in ninth grade health classes received education on alcohol and drug use and abuse. In addition, teachers in all classes were asked to dedicate one session to substance abuse issues during a drug awareness week. Additional educational programs were provided by a variety of guest speakers including Jesse Jackson, the Power Team, New Beginnings, and Pepsi, and an entire week was devoted to activities related to prevention. The Core Team provided an inservice for teachers on the symptoms and signs of substance abuse. As part of the prevention plan, parents also were offered a presentation on substance abuse.

The intervention program at the high school included the following: a system of identification and referral of students with problems, staff inservice, and supplemental intervention. The referral system provided a mechanism for school staffs to identify and refer students at risk of substance abuse or who were known abusers of drugs or alcohol. Students who were known to be selling illegal substances or were suspected of these activities were referred through this system as well. A small number of staff members participated in Impact Training provided by a local hospital. The supplemental intervention activities provided by high school staff included a support group for students who had drug or alcohol problems and for friends of these students. The student support group often provided post-treatment follow-up for students who completed a substance abuse program outside of the school. Another supplemental intervention program offered in the high school was a parent involvement group for parents and students. Students who were identified as selling, buying, or using substances participated with their parents in this group as an alternative to long-term suspension.

Changes in Student Knowledge and Attitudes

Students in nine second semester health classes at the high school were tested on drug knowledge and attitudes prior to and after a unit on substance abuse. Both pretests and posttests were available for 93 of the 242 students, or 38%. No significant differences were found between the pretest and posttest scores for the items measuring knowledge of drugs and alcohol. Students correctly answered an average of 12 of the 14 items or 86% on both tests. Scores for students who completed the tests are in Table 5.

Table 5
Mean Pretest and Posttest Scores
on Knowledge Items

Pre	Post
12.5	12.3

On the items which measured attitudes toward drug and alcohol use, students scored significantly higher on the posttest than on the pretest, (t = 2.28, $p < .05$), indicating that students were more likely to give the desirable response after the substance abuse unit. However, the difference between the mean pre and posttest scores was small, less than one item. On both pretest and posttest, students correctly answered about 8 out of 9 items, or 89%. Mean scores are reported in Table 6.

Table 6
Mean Pretest and Posttest Scores
on Attitude Items

Pre	Post
7.5	7.8

Student Opinions of Prevention Program

Two randomly selected classes of students at each grade level, ninth through twelfth, or a total of 130 students, completed student surveys evaluating the substance abuse prevention and intervention efforts at their school. All grades were represented in the sample, with 21% seniors, 14% juniors, 39% sophomores, and 27% freshmen. The surveys were identical to those completed by the middle school students; therefore, the questions will not be repeated in this section.

Student Activities. The presentation attended by most of the students was a speech by Jesse Jackson. Other presentations mentioned, in order of frequency from most frequently to least frequently mentioned, were the Power Team, a speech on drugs and alcohol, the Pepsi assembly, health education classes, and a lecture by a representative from an alcohol treatment facility. A large number of students gave answers that didn't specify which presentations they attended such as, "all," or "something on cocaine." Approximately 15% of the students, primarily tenth graders, said that they did not attend any of the prevention activities. A small number of students gave negative responses such as, "I didn't attend any, who would?" or indicated they only attended the sessions that were "mandatory."

The majority of high school students thought Jesse Jackson's speech was the best of all that they attended. The students said he was a "powerful speaker" and was good at involving the audience. Some students especially liked his speech because he didn't talk down to them or condemn them for using drugs.

Instead, he talked to them respectfully and spoke of choices and options students have in their lives. The Power Team presentation and the Pepsi assembly were other activities frequently selected as best. Students liked the Power Team because they emphasized positive aspects of not using drugs rather than the negative aspects of using them, while the Pepsi assembly was liked because of the films and special effects that were utilized. A small percentage of students said they didn't like any of the presentations.

When asked how the prevention program helped them, most high school students thought that they were better educated about drugs and alcohol and the consequences of their use. About one-third said that they weren't helped by the prevention program because they already knew about the dangers of substance abuse, or they didn't use drugs or alcohol and, therefore, didn't need to hear about the negative consequences of their use to be convinced to abstain. About five percent of the responding students said that after participating in the prevention program they were not going to use, or even to try, drugs or alcohol.

Intervention Process. When asked what they would do if a friend were having problems with drugs or alcohol, most of the students thought they would talk to their friend first. A large number said that if talking didn't help, they would seek assistance from a counselor, parent, teacher, or other professional. Some said their first action would be to talk to a counselor, nurse, or parent. Many said they would get help for their friend or advise their friend to get help from a rehabilitation center or a hospital. About one-tenth of the students who responded to this question thought that they would do nothing, not get involved, or "join them." A few offered the solution of discontinuing the friendship.

When asked what was the best way of helping students at school with drug and alcohol problems, a wide variety of responses were provided. Again, many students thought that talking to students and offering understanding, advice, or information on the risks associated with substance abuse was the best way to help. Many high school students thought that providing counseling was important and suggested a rehabilitation program, a support group, or a school program with special meetings. Peer counseling and parent involvement programs were mentioned by some. A few thought that a good approach would be to involve students in more positive, drug-free activities at school. Education in the form of the health classes, speakers, and assemblies that are currently provided was another idea offered by students. Twelve percent thought that students with drug or alcohol problems should be left alone because "it's their own business" or that drug use is a problem that should be dealt with at home. One student remarked that he "uses drugs everyday and no one tries to help me. I don't need anyone's help either!" Other suggestions were to "kick them out," punish them, scare them, "beat them up," discipline them, or help them with religion. Six percent of the students said they didn't know what to do.

Staff Opinions of Prevention Program

More than two-thirds of the high school staff completed surveys. The questions contained in the surveys were identical to those completed by elementary and middle school staff members and dealt with their opinions of three areas: student activities, staff inservice, and intervention strategies.

Student Activities. A large number of activities provided for students were attended by the high school staff. The most frequently attended presentations in order from most to least were: Jesse Jackson's speech, a drug awareness lecture, the Pepsi assembly, the Power Team presentation, talks by a physician and a person from an alcohol treatment facility, presentations by the police and demonstration of the Batmobile (a mobile unit to test for intoxication), a presentation by the media center, presentations by QUEST and Teen Challenge, and an anti-alcohol assembly.

Most staff respondents said they liked Jesse Jackson's speech the best because he was a national figure and was respected by the students. They also thought he was effective and made people think. Several staff members selected the Pepsi assembly as their favorite because it was entertaining and powerful due to the effective use of music and film. Both Jesse Jackson and the Pepsi assembly "addressed problems of peer pressure and self-esteem." These and other presentations by non-school personnel were thought to be effective because the speakers were good role models and as "outsiders," that is, adults other than parents and teachers, they could more effectively convey a message about substance abuse. Some school staff members thought that activities which emphasized student participation were best, while others preferred activities which were personal in nature, such as a speaker who related her own bad experiences with substance abuse. The drug awareness week was believed by some to be most effective because of its duration and the variety of activities provided.

Although most reactions to student activities were positive, some staff members thought Jesse Jackson's speech was mainly rhetoric and "manipulative," and the drug awareness week was "ineffective." One teacher said that her students thought the current emphasis on prevention was a "waste." Another said that those who needed to hear the messages on prevention were not present at the assemblies.

When asked how the speeches and activities helped students, most of the school staff said that they increased awareness about the negative effects of using drugs or alcohol. Several thought the presentations led to later discussion. Some believed that the speakers helped students to deal with peer pressure and to see that they did not need to take drugs to be accepted. A few teachers said the presentations had little effect on students' behavior.

Staff Activities. Of those staff members who completed the questionnaire, about one-third said that they attended an inservice offered by the Core Team or completed the Impact Training. The majority felt that the Impact Training was the most effective because it required active participation by the teachers and offered skills to use with students. Most did not provide an answer to which were the least effective presentations. Those who expressed an opinion felt there was too much overlap between activities and that the movies during awareness week were not relevant.

Intervention Process. When asked what they would do if they believed that a student was having problems with drugs or alcohol, almost half of the respondents said they would make a referral to the Core Team. Another small group said they would refer to the Impact Team which, based on the responses,

seemed to be another name used by teachers to refer to the Core Team. Some indicated that in addition to making a referral to the Core Team, they would talk to the student. About one-fourth of the respondents suggested strategies other than using the Core Team. School staff said they would tell the nurse, the school counselors, the police or a detective, the student's parents, or school administrators. Other nonspecific solutions were to get help, to report the student, or to refer the student to the office. About one-tenth said they would do nothing or weren't sure what to do. Many staff members believed the Core Team approach was the most effective way to help students at school who were experiencing substance abuse problems. Some said that participation in a support group or parent involvement sessions, along with the Core Team intervention approach, was the most effective solution. Other ideas suggested were individual, group, or peer counseling; support groups; referral for outside or professional help such as a rehabilitation program; or education. A number thought that parent involvement was important. Again, as in the previous question, about one-tenth didn't know what was the most effective strategy or thought no strategies were effective in helping students with substance abuse problems.

Summary and Conclusions

All three schools included in the evaluation were in compliance with most of the administrative procedures for implementation of the district's substance abuse policy. As planned, the focus of the programs progressed from prevention in the lower grades to intervention in the upper grades. The elementary school program emphasized prevention in the form of classroom education. Both the middle and high schools had organized active prevention and intervention programs with more emphasis placed on intervention at the high school than at the middle school.

Prevention

The prevention programs at the three schools focused on education as the primary method for preventing substance abuse. The number and variety of educational programs was greater at the higher grade levels. Of the presentations and educational activities offered at the middle and high schools, students preferred those with special effects or demonstrations, those that taught them more, those that included a charismatic speaker, and those which emphasized positive aspects of not using drugs. Teachers preferred the same type of activities because they thought they more effectively held the students' attention. Other student activities preferred by the teachers were those with a personal approach which encouraged discussion and addressed issues of peer pressure and self-esteem. It was apparent from some student responses which were negative or hostile, that substance use is a volatile issue. Therefore, it is especially important to provide presentations to which students respond positively. Both students and teachers thought the educational programs helped students by increasing their awareness of the negative consequences related to alcohol and drug use and would ultimately decrease substance abuse. About ten percent of the high school students and some of their teachers expressed the opinion that the educational programs had no impact on students' behavior.

Students who participated in the educational program at the elementary school showed significant improvement in their knowledge about substance use and abuse. However, the average difference between scores on pretests and posttests was small and, on both tests, students answered less than half of the items correctly. Unlike the elementary students, middle and high schools students showed no significant gains in their knowledge of substance abuse issues, as their pretest scores were already quite high. Eighth graders correctly answered 79% of the test items and ninth graders correctly answered an average of 86% of test items measuring knowledge of substance use and abuse. The results suggest that middle and high school students already have acquired general knowledge about substance use and abuse. Another possible explanation of the results is that the questions on the tests did not reflect the knowledge gained in the substance abuse units at the middle and high schools. Because the test was adapted from a survey developed for use by the New Mexico Health and Environment Department and not by the teachers themselves, it may not have reflected course content. On the other hand, the elementary test was a unit test provided with the curriculum materials. Both the test used and the level of sophistication of the students are reasonable explanations for the lack of significant gains by middle and high school students.

Significant improvement in attitudes was not apparent at the elementary or middle school levels. However, high school students showed a significant improvement in attitudes between pretesting and posttesting, although the mean difference between the two tests was quite small.

Implicit in the prevention programs is the assumption that increased knowledge will change attitudes about substance abuse which will in turn lead to a decrease in the use of alcohol and drugs. Results of this evaluation did show a significant relationship between knowledge and attitudes at the high school ($r = .38$, $p < .001$); as knowledge increased, attitudes improved. However, this relationship was not evident at the elementary or middle school level. These conflicting results are congruent with others in the literature on substance abuse prevention (Kinder, Pape, & Walfish, 1980). If there is no predictable relationship between knowledge and attitudes, the important question to be raised is what is the relationship between increased knowledge and substance use behavior? According to the one well-controlled study on the effects of education on substance abuse (Stuart, 1974), increased knowledge may actually **increase** use of alcohol and other drugs. Since at present there is no research demonstrating a clear beneficial effect of increased knowledge on behavior and there is some evidence that increased knowledge may in fact have detrimental effects, it is important that future evaluation designs include a measure of drug or alcohol use to determine the precise effects of prevention programs which emphasize education.

Current research shows that prevention programs which include training in life skills such as decision-making, coping, and self-improvement have reduced smoking and problem drinking with adolescents (Botvin, Eng, & Williams, 1980; Botvin, Baker, Botvin, Filazzola, & Millman, 1984). Educational programs with these or similar components were provided by the schools this year. For instance, Youth Leadership, the student seminars at the middle school, and the eighth grade health classes included units on communication, self-esteem, peer pressure, and conflict resolution. Some of these programs were offered as part of the substance abuse prevention efforts, while others were not considered a part of the program to be evaluated. Since programs which address personal and social competence may be more effective in reducing substance abuse than education alone, future evaluations might assess their impact more directly.

Of the activities offered to staff, presentations by their own school personnel were thought to be effective, along with Impact training, and presentations by physicians who are experts in the area of substance abuse. The only criticism about inservice training was the amount of overlap between presentations.

Intervention

Students expressed the opinion that the best way to help other students with substance abuse problems was to talk to them and convince them not to use drugs. Most students indicated that they would seek help from other sources if they thought that it was necessary, although some thought this would be "telling on" the other student. Sources of help mentioned by students were parents, counselors, nurses, the principal, or another adult. At the high school level some students believed that they should do nothing or would not get involved if a friend of theirs was experiencing substance abuse problems. Students also

suggested peer counseling and education as ways to help students. A small proportion said that they didn't know what to do. It appears as though this group as well as the other students from the middle and high schools could benefit from information on how to use the school's referral system.

Teachers at both the middle and high school most often said they would use their referral system if they thought a student had a problem with drugs or alcohol. At the elementary level, teachers indicated that the school counselor or the nurse would be the appropriate person to handle problems of this nature. Family counseling was mentioned often by teachers and support staff as important in dealing with cases of substance abuse. Like the students, school staff thought peer counseling also was helpful. Education was thought by staff members to be another effective intervention method. At the high school level about one-tenth of the respondents didn't know what to do or thought nothing was effective. It appears that even though inservice was provided at this school, these teachers and support staff could benefit from additional information.

Current APS policy insures that staff members, including the project leader, will review the data and findings contained in the report. A plan which includes appropriate steps to address identified program needs will be implemented.

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